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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,010	05/08/2000	FREDRIK WINQUIST	BERGLUNDSP9	4135
7590 03/22/2004 Norman P. Soloway P.C. HAYES SOLOWAY P.C. 130 W. Cushing Street Tucson, AZ 85701			EXAMINER HANDY, DWAYNE K	
			ART UNIT 1743	PAPER NUMBER

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/508,010

Applicant(s)

WINQUIST ET AL.

Examiner

Dwayne K Handy

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1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-42 and 44-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-42 and 44-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 39-42 and 44-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewandowski et al. (4,897,162) in view of Lewis et al. (5,571,401). Since this rejection was applied to claims 39-42 and 44-53 in the previous action, the Examiner is sure that applicant is familiar with these references. This rejection is repeated below for applicants convenience.

Lewandowski teaches a glucose sensing apparatus and methods for operating the device. The basic method involves providing voltage signals at varying levels between a reference electrode (10) and a sensing electrode (12) (column 4, also Figure 12). In addition to voltage, Lewandowski also recites using measurements of amplitude, frequency and varying wave shapes in claim 1. Varying waveshapes is also mentioned in column 5, lines 38-55. The use of superimposing (overlapping) pulses and cyclic switching, as well as a pulse frequency of 200 hertz is discussed in column 5, lines 3-57 and column 7, lines 16-54. Lewandowski specifically recites applying voltage to electrodes and recording current in column 4, lines 8-30. Lewandowski does not teach a plurality of working electrodes coated with different materials, treating the transient by derivative of integration methods, or switching the current or voltage generator between different electrodes. Lewis et al. (5,571,401) teaches a sensor array for detecting analytes in fluids. The sensor array detects fluids based on resistance measurements from an array of electrodes. The measurements are represented in two-dimensional form (Figure 3) and even three-dimensional form in certain embodiments. Lewis also teaches that these electrodes work together in an array to provide the measurements

(col. 2). Lewis describes measuring temporal response and data manipulation in col. 7, lines 39-57. It would have been obvious to one of ordinary skill in the art to add the teachings of Lewis to the method/device of Lewandowski. The multiple electrodes and subsequent response pattern produced by Lewis allows for a more distinct measurement of an analyte. This would be advantageous when measuring a sample.

Response to Arguments

4. Applicant's arguments filed 2/2/2004 have been fully considered but they are not persuasive. In traversing the rejection set forth in the previous Office Action, applicant has argued that the combination of references does not teach nor suggest the measuring of a transient response. The Examiner respectfully disagrees. Applicant has submitted a definition of "transient" from Webster's dictionary which defines "transient" as "passing especially quickly into and out of existence". The Examiner would like to note, however, that Webster also defines "transient" as "a temporary oscillation that occurs because of a sudden change of voltage or load". The Examiner believes that this is what Lewandowski teaches – the application of a load to cause a temporary oscillation. This temporary change is then measured and used to identify an analyte. As to applicant's contention that Lewandowski does not teach the reading of "transients" based on a time frame, the Examiner directs applicant to column 5, lines 49-55 where Lewandowski teaches the application of a signal that has a duration of "0.1 to 0.6 seconds". The Examiner believes that based on the time frame cited by applicant in Arguments and in the working example of the specification (430msec), the time frame is

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met by this passage. Therefore, the Examiner believes that even when the term "transient" is read as a time limitation, that limitation is still met by the reference Lewandowski since their responses last within the same time span.


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKH
March 16, 2004


Jill Warden
Supervisory Patent Examiner
Technology Center 1700